

CLAIMS

Having fully described my invention I claim:

1. A Computer Program Operation Interface comprising:
 - a molded plastic base with a generally oval shaped horizontal base platform intended to interface with a desk top work surface,
 - said base having a vertical tab rising up from one end of the horizontal base platform at a 90 degree angle,
 - said base having a vertical pillar rising from the horizontal base platform at a 90 degree angle located approximately in the center of the horizontal base platform having a threaded hole in the top of said pillar,
 - said base having an orifice in the horizontal base platform between the vertical tab and the vertical pillar and another at the top of the vertical tab configured to receive an industry standard X-Y axis rollerball sensor with its appurtenances,
 - said base containing a vertical apron around the perimeter over which the covering shell rests and into which is molded four receptors on each of the long sides of the base apron configured to receive four industry standard on/off micro-switches located directly under the finger pads molded into the covering shell, and
 - said base having a U shaped slot in the base apron at the end opposite the vertical tab through which the serial patch cord exits the base.
2. A Computer Program Operation Interface comprising:
 - a molded plastic covering shell which fits over the vertical shortwall and onto the stepledge and is anchored to the base with a single assembling screw,
 - said covering shell to fit snugly around the vertical tab and the perimeter of the horizontal base platform,
 - said covering shell to have molded into one or the other sides four finger pads separated vertically but hinged at the top,
 - said covering shell to have a U shaped slot in the end opposite the vertical tab to allow exit of the serial patch cord from the base.

3. A Computer Program Operation Interface according to claim 1 containing six switch actuators:

one said actuator being an X-Y axis rollerball sensor located in the orifice provided in the horizontal base platform to activate for example the cursor location function of the program,

another said actuator being an X-y rollerball sensor located in the orifice provided in the vertical tab to activate for example the horizontal and vertical scroll functions of the program, while manipulated by the thumb,

four industry standard on/off microswitches installed in the receptors molded into the side of the base apron and located directly under the finger pads molded into the appropriate side of the covering shell, and all six switches being wired into an industry standard wiring harness and serial patch cord.

4. A Computer Program Operation Interface accompanied by driver and operational software that is programable and written in the python language to allow the operation of each actuator switch to be programmed to the needs of the user and to make the device compatible with all hardware and software programs.

5. A Computer Program Operation Interface covering shell according to claim 2 comprising:

a shape to be precisely determined by consulting with anatomical experts familiar with cause and prevention of carpal tunnel syndrome,

said shape to be generally egg-shaped completely filling the cavity of the palm of a relaxed hand in the natural position,

said shape to provide support for the entire surface of the palm and fingers,, and

said shape to have a textured surface to provide ventilation for the palm and a sure grip on the device by the user.

6. A Computer Program Operation Interface which allows the full and optimum function of the hand of the operator with:

the thumb operating the X-Y rollerball sensor located in the vertical tab actuating for example the horizontal and ver-

tical scroll functions of the program,
the lateral movement of the wrist moving the X-Y axis roller-ball sensor located in the horizontal base platform actuating for example the cursor location function of the program, and

each of the four fingers operating one of the four individual finger pads on the side of the covering shell activating an on/off microswitch located under the finger pad and activating a selected function of the program permitting all six switches to be manipulated independently and simultaneously allowing optimum use of the operator's hand.

7. A Computer Program Operation Interface having two X-Y roller-ball sensors and four on/off microswitches strategically located to allow all six switches to be manipulated independently and simultaneously by the thumb, four fingers and slight lateral movement of the wrist providing optimum input capability to better meet the needs of ever more complex computer programs and games.

8. A Computer Program Operation Interface comprising a molded plastic covering shell of claim 2 which is egg-shaped and fits comfortably into the palm of a relaxed hand in the natural position completely filling the palm cavity and supporting the entire inner surface of the palm and fingers eliminating the need for the operator to extend the fingers into an unnatural position and completely eliminating unnatural stress on the muscles and tendons of the hand and arm.